REMARKS

Independent Claim 1 is amended to more particularly point out the subject matter of the invention claimed therein.

Independent Claim 22 is amended to more particularly point out the subject matter of the invention claimed therein and to incorporate the limitations of Claim 5, which has been determined to contain allowable subject matter.

Independent Claim 27 is cancelled.

Independent Claim 34 is amended to more particularly point out the subject matter of the invention claimed therein and to incorporate the limitations of Claim 35, which is believed to contain allowable subject matter for the reasons presented below in support of the rejection of Claim 35. Claim 35 is cancelled.

Independent Claim 48 is amended to more particularly point out the subject matter of the invention claimed therein and to incorporate the limitations of Claim 24, which is believed to contain allowable subject matter for the reasons presented below in support of the rejection of Claim 24.

Dependent Claims 12, 13 and 21 have been amended to correct obvious clerical errors.

New dependent Claim 49 is added. Support for new Claim 49 is provided in the original Specification at page 8, lines 10-12 and at page 10, line 11 to page 11, line 2.

New independent claims 50 and 51 are added. These two claims are directed to computer readable storage media containing computer executable program instructions for causing a computer to perform the computer processing steps respectively recited in amended independent Claims 1 and 22.

The amended independent claims and some of the prior dependent claims have been amended to more particularly point out the subject matter of the invention by changing the recitation of "means for processing" to a computer adapted for processing

PAGE 18/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

and by changing "means for storing" to a memory storing.

The Summary of the Invention portion of the Specification is amended to be consistent with the amendment of Claim 1.

Interview

The courtesy of Examiner Huynh in granting a telephone interview to the undersigned attorney on July 15, 2010 is sincerely appreciated. During the interview the Examiner stated that Claim 18 should have been rejected for the same reason as Claim 17 was rejected and that Claim 22 should have been rejected for the same reason as Claim 4 was rejected.

Claim Rejections - 35 USC §112

Independent Claims 1 and 22 are amended to overcome the rejection of Claims 1-24 under 35 USC 112, second paragraph, as being indefinite.

Claim Rejections - 35 USC §103

The rejection of Claims 1-4, 6, 9, 15, 16, 18-22, 24, 25 and 48 under 35 USC 103(a) as being unpatentable over Talaie in view of Goerke is respectfully traversed for at least the following reasons:

Claim 1 is patentable over Talaie in view of Goerke because said references neither disclose nor suggest that:

- a memory in a relay terminal stores relay-authorization-and-priority data for a plurality of originator user terminals and destination user terminals having respective identification codes;

or that:

- immediate relaying of received communication signals is authorized to only those of the identified destination terminals to which immediate relaying is authorized in accordance with a determination made by processing identification codes detected in received communication signals in combination with stored relay-

PAGE 19/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

authorization-and-priority data for a plurality of user terminals having respective identification codes,

both as required by Claim 1.

Although the Examiner cited paragraphs 34, 35 and 37 of Talaie as teaching:

"means for storing relay-authorization-and-priority data for a plurality of originator user terminals and destination user terminals having respective identification codes"

and paragraphs 39 and 40 of Talaie as teaching in the recited claim feature of:

"means for processing said detected identification codes in combination with said stored data to determine if immediate relaying of said received communication signals to respective said identified destination terminals is authorized",

Talaie does not teach either

- that such relay-authorization-and-priority data is stored in the relay terminal, or
- that that stored relay-authorization-and-priority data is processed in combination with identification codes detected in the received communication signals to determine if immediate relaying of the received communication signal to an identified destination terminal is authorized,

both as recited in Claim 1.

It appears from paragraph 40 that Talaie merely teaches that a user terminal "conveys the net ID, its own ID and priority" during an exchange of forward and return link signaling, and that it is the "priority" which is conveyed with the user terminal ID during such an exchange that is used to determine priority amongst a plurality of received communication signals, as diagrammed in FIG. A on the following page,

rather than the processing of

(a) stored relay-authorization-and-priority data for a plurality of user terminals having respective identification codes,

with

(b) user terminal identifications detected in received communication signals,

as required by Claim 1, and as diagrammed in FIG. B on the following page.

PAGE 20/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

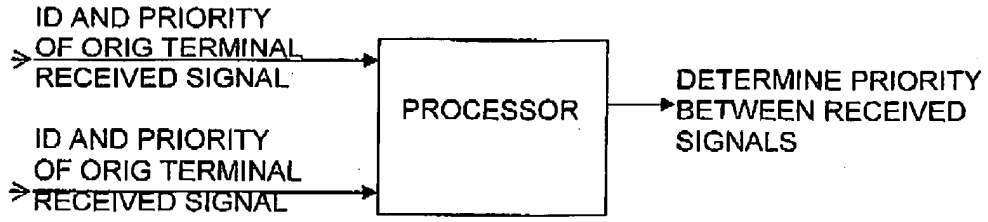


FIG. A - TALAIE EL AL.

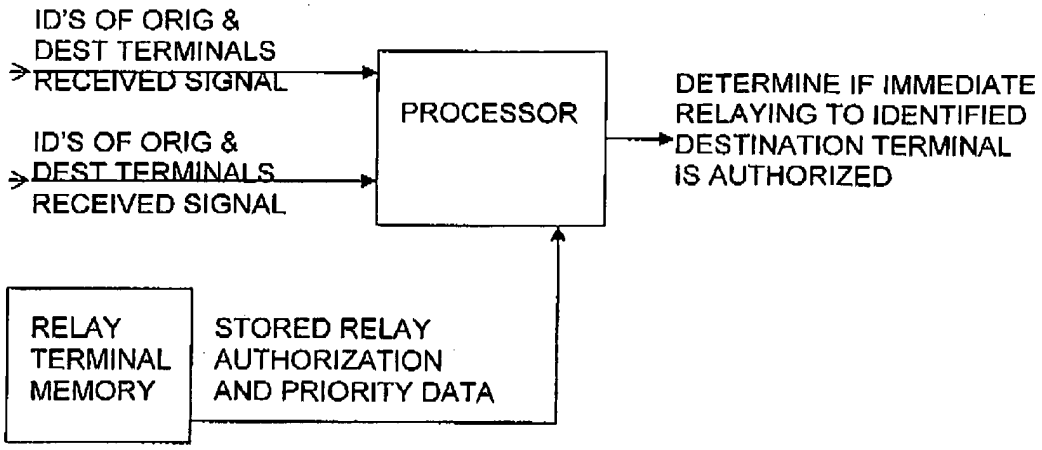


FIG. B - CLAIM 1

Also, there is at least one problem with the Examiner's statement that:

> "Talaie does not explicitly teach means for relaying said received communication signals immediately to only those of said identified destination terminals to which immediate relaying is authorized in accordance with said determination".

This problem is an implied inference by the Examiner that Talaie teaches authorization of relaying in accordance with the determination recited in Claim 1. Such an inference is not permissible because, as pointed out above, Talaie does not teach that authorization to relay a communication signal received by a relay terminal is determined by processing stored relay-authorization-and-priority data in combination with identification codes detected in the communication signal that is received by the relay terminal.

PAGE 21/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

The Examiner cited Goerke as teaching:

"that a call between an originating mobile station and a destination mobile station is conducted immediately when the destination mobile station is available (authorized for immediate relaying) and placed on hold when the destination mobile terminal is unavailable (not authorized for immediate relaying) (column 10, lines 60-67, column 11, lines 1-36).",

and asserted that:

"it would have been obvious to modify the invention of Talaie to include relaying based on availability of the destination terminal, as taught by Goerke, in order to avoid wasting resources by attempting to contact unavailable mobile terminals."

In rebuttal, it is submitted that the Examiner's above-quoted assertion of obviousness is not supported by the cited references because:

- as pointed out above, neither Talaie nor Goerke suggests processing identification codes detected in received communication signals in combination with stored relay-authorization-and-priority data for a plurality of user terminals having respective identification codes for the purpose of determining whether or not immediate relaying or sending of a signal to an identified destination terminal is authorized, as required by Claim 1.
- Georke's mere teaching of immediately sending a signal to a particular destination terminal that is then available is not equivalent to determining whether immediate sending of a signal to identified destination terminals is authorized by a determination that is made by processing identification codes detected in received communication signals in combination with stored relay-authorization-and-priority data for a plurality of user terminals having respective identification codes for the purpose of determining whether or not immediate relaying of the received communication signal is authorized.
- the advantage of avoidance of waste of resources asserted by the Examiner is merely an advantage that was derived in hindsight for a modification that is not suggested by the applied references.

PAGE 22/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

Claims 2-4, 6, 9, 15, 16 and 19-21 ultimately depend from Claim 1 and thereby are patentable over Talaie in view of Georke for at least the same reasons as set forth above for arguing the patentability of Claim 1 over Talaie in view of Georke.

Further regarding dependent Claim 16, neither of the applied references teaches the following limitations of this claim:

- deriving directional-position data associated with a given originator terminal from an acquisition segment of a burst of a received given communication signal; and
- immediately defining a beam path in accordance with the derived directional-position data to enable receipt of the remaining portions of the received signal burst within the defined beam path.

The Examiner cited column 8, lines 44-59 of Goerke as teaching these limitations. Column 8, lines 44-59 of Goerke states:

> "If the two do match, then in step 1122, the earth station node calculates the rough terrestrial position of the mobile terminal apparatus 2 using the differential arrival times and/or Doppler shifts in the received signal, and knowledge of which beams of which satellites 4 the signal was received through. The position is then stored in the database 48 in step 1124.
>
> At the mobile terminal 2, it is determined (step 1010) whether the authentication has validated the mobile terminal and, if so, normal operation of the terminal continues. If not, the terminal may, for example, indicate on the display 39 that service has been refused.
>
> The earth station node 6 also determines with which satellite 4 and beam to communicate with the mobile terminal 2, and stores the identities of satellite and beam in the database 48."

The cited portion of Goerke makes no mention of either directional-position data being derived from an acquisition segment of a burst of a received signal or immediately defining a beam path in accordance with the derived directional-position data to enable receipt of the remaining portions of the received signal burst within the defined beam path, as required by Claims 16 and 18.

PAGE 23/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

Further regarding dependent Claim 21, neither of the applied references teaches the following limitations of this claim:

- at least one said relay terminal according to Claim 1 being disposed in each of a communication-satellite and an aircraft, and
- a computer of each said relay terminal being adapted for processing the same detected identification codes in combination with the same stored data to determine whether immediate relaying of received communication signals to respective identified destination terminals is authorized.

The Examiner did not provide any reason for rejecting Claim 21, except for stating merely:

"the limitations are rejected as applied to claim 1."

It is respectfully requested that the Examiner provide an explanation for this rejection that is directed to the limitations specifically recited in Claim 21.

Independent Claim 22 is patentable over Talaie in view of Georke for at least the same reasons as Claim 5 is allowable over these two references, in that both claims require that identification codes detected in received communication signals and stored relay-authorization data be processed in combination with both time-of-day data and geographical-position data for the relay terminal and the identified destination terminals to determine whether immediate relaying of a received communication signal to respective identified destination terminals is authorized in accordance with the time of day and the relative positions of the relay terminal and the identified destination terminals.

Regarding independent Claim 24, neither of the applied references teaches the following limitations of this claim:

- detecting the direction of arrival of the received given communication signal by processing portions of the given signal received prior to detecting identification codes in the received given signal.

This limitation precludes detecting the direction of arrival by deriving the direction of arrival from identification codes detected in the received signal. The Examiner has not

PAGE 24/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

cited any portion of either the applied references that teaches this particular limitation.

Independent Claim 25 is patentable over Talaie in view of Georke for at least the same reasons as set forth above on page 23 for arguing the patentability of Claim 16 over Talaie in view of Georke.

Independent Claim 48 is patentable over Talaie in view of Georke for at least the same reasons as set forth above on page 24 for arguing the patentability of Claim 24 over Talaie in view of Georke.

The rejection of Claims 10-14, 17, 18, 27 and 34-36 under 35 USC 103(a) as being unpatentable over Talaie and Goerke as applied to Claims 1, 9, 16 and 25 and further in view of Schuchman is respectfully traversed for at least the following reasons:

Claims 10-14, 17 and 18 ultimately depend from Claim 1 and thereby are patentable over Talaie and Goerke in view of Schuchman for at least the same reasons as set forth above for arguing the patentability of Claim 1 over Talaie in view of Georke.

Further regarding Claims 12 and 13, none of these three applied references teaches the following limitation:

- causing respectively different frequency-hopping patterns to be applied to acquisition, identification and payload segments of relayed communication signals.

The Examiner did not cite any portion of the applied references as teaching this particular limitation. In support of the rejection of these claims the Examiner asserted:

> "the data broadcasted by the satellite would be frequency hopped and is further obvious that this data would comprise acquisition, identification and payload segments which is a well known packet structure."

Nonetheless there is no suggestion by the applied references of causing respectively different frequency-hopping patterns to be applied to acquisition, identification and payload segments of relayed communication signals, as required by Claims 12 and 13.

PAGE 25/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

Regarding dependent Claims 17, 18 and 26, which depends from Claim 25, Claims 17, 18 and 25 contain the same limitations as Claim 16; whereby Claims 17, 18 and 26 are patentable over Talaie and Goerke in view of Schuchman for at least the same reasons as set forth above on page 23 for arguing the patentability of Claim 16 over Talaie in view of Georke.

Independent Claims 34 and 36 are patentable over Talaie and Goerke in view of Schuchman for at least the same reasons as set forth above on page 25 for arguing the patentability of Claims 12 and 13 over Talaie and Goerke in view of Schuchman.

Allowable Subject Matter

The indication that Claims 5, 7 and 8 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim is gratefully acknowledged.

Because it is believed that Claim 1, from which Claims 5, 7 and 8 ultimately depend, is allowable for the reasons set forth above, Claims 5, 7 and 8 are not being rewritten in independent form at this time.

New Claims

New Claim 49 is allowable over the cited references because the cited references neither disclose nor suggest that multiple tables of relay-authorization-and-priority data are stored in the memory of a relay terminal for processing with identification codes detected in received communication signals at different times and/or different locations of the relay terminal to determine if immediate relaying of the received communication signals to respective said identified destination terminals is authorized, as required by new Claim 49 and Claim 1, from which Claim 49 depends.

New Claim 50 is allowable over the cited references for at least the same reasons as set forth above on pages 19-23 for arguing the patentability of Claim 1 over Talaie in

PAGE 26/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00

view of Georke.

New Claim 51 is allowable over the cited references for at least the same reasons as pointed out above on page 25 for arguing the patentability of Claim 22 over Talaie in view of Georke.

Conclusion

Applicant does not necessarily agree with any of the Examiner's comments regarding the applicability of the cited references to any of the claims. However, in view of the reasons presented herein for traversing the rejections of the claims, applicant is not presenting additional arguments at this time. Applicant reserves the right to present additional arguments for traversing the present and any future rejections of the claims.

Examination and allowance of Claims 1-26, 34, 36 and 48-51 are respectfully requested.

Respectfully submitted,



Edward W. Callan
Attorney Registration No. 24,720
Attorney for Applicant

Telephone: (858) 259-5533

PAGE 27/27 * RCVD AT 7/26/2010 6:38:05 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/18 * DNIS:2738300 * CSID:8582595537 * DURATION (mm-ss):07-00